

WHAT IS CLAIMED IS:

1. A method for use in a server, comprising:
receiving a signal representing a request from a remote user for a secure resource
residing on a network employing a generic application-layer network protocol;
5 determining, without the intervention of the user, the type of security credential
required to access the secure resource; and
sending a signal representing a second request to the secure resource, the second
request including a security credential for the user of the type required to access the secure
resource.

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2. The method of claim 1, further comprising:
authenticating the user before sending the signal representing the second request.

3. The method of claim 1, further comprising:
receiving a signal representing a response to the second request; and
sending a signal representing a result to the remote user, the result based on the
response to the second request.

4. The method of claim 1, wherein the request includes a logon credential for the
remote user, further comprising:

authenticating the remote user based on the logon credential before sending the
second request.

5. The method of claim 1, wherein the request includes a logon credential for the
remote user and the type of security credential required to access the secure resource includes
the logon credential, further comprising:

sending the signal representing the second request to the secure resource, the second
request including the logon credential.

30 6. The method of claim 1, wherein the request includes a logon credential for the
remote user, further comprising:

receiving a signal representing a single-sign-on (SSO) credential generated by a SSO provider based on the logon credential; and

sending a signal representing the SSO credential to the secure resource when the type of credential required to access the secure resource includes the SSO credential.

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7. The method of claim 6, further comprising:

sending a signal representing the SSO credential to the secure resource when the type of credential required to access the secure resource includes a second SSO token corresponding to a second SSO provider having a trust relationship with a first SSO provider corresponding to the SSO token.

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8. The method of claim 6, further comprising:

receiving a signal representing a second SSO credential generated by a second SSO provider based on the first SSO credential; and

sending a signal representing the second SSO credential to the secure resource when the type of credential required to access the secure resource includes the second SSO credential.

9. The method of claim 1, wherein the generic application-layer network protocol is hypertext transfer protocol.

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10. The method of claim 9, further comprising:

receiving a signal representing data in response to the second request; and

sending a signal representing at least a portion of the data to the remote user.

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11. The method of claim 10, wherein the Web resource includes a Web site, and the data is hypertext mark-up language.

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12. The method of claim 1, wherein receiving includes receiving a signal representing a request from the remote user for a second secure resource residing on the network, further comprising:

determining, without the intervention of the user, the type of security credential required to access the second secure resource; and

sending a signal representing a third request to the second secure resource, the third request including a security credential for the user of the type required to access the second secure resource; and wherein

5 the signals representing the second and third requests are sent concurrently.

10 13. The method of claim 12, wherein the types of security credentials included in the second and third requests differ.

14. The method of claim 12, wherein the types of security credentials included in the second and third requests are the same.

15 15. The method of claim 1, further comprising:
receiving a signal representing the security credential from the user before receiving the signal representing the request.

16. The method of claim 15, further comprising:
storing the security credential at least until sending the signal representing the second request.

20 17. An apparatus for use in a server, comprising:
means for receiving a signal representing a request from a remote user for a secure resource residing on a network employing a generic application-layer network protocol;
means for determining, without the intervention of the user, the type of security credential required to access the secure resource; and
means for sending a signal representing a second request to the secure resource, the second request including a security credential for the user of the type required to access the secure resource.

30 18. The apparatus of claim 17, further comprising:

means for authenticating the user before sending the signal representing the second request.

19. The apparatus of claim 17, further comprising:

5 means for receiving a signal representing a response to the second request; and

means for sending a signal representing a result to the remote user, the result based on the response to the second request.

20. The apparatus of claim 17, wherein the request includes a logon credential for 10 the remote user, further comprising:

means for authenticating the remote user based on the logon credential before sending the second request.

21. The apparatus of claim 17, wherein the request includes a logon credential for 15 the remote user and the type of security credential required to access the secure resource includes the logon credential, further comprising:

means for sending the signal representing the second request to the secure resource, the second request including the logon credential.

22. The apparatus of claim 17, wherein the request includes a logon credential for 20 the remote user, further comprising:

means for receiving a signal representing a single-sign-on (SSO) credential generated by a SSO provider based on the logon credential; and

25 means for sending a signal representing the SSO credential to the secure resource when the type of credential required to access the secure resource includes the SSO credential.

23. The apparatus of claim 22, further comprising:

means for sending a signal representing the SSO credential to the secure resource

30 when the type of credential required to access the secure resource includes a second SSO

token corresponding to a second SSO provider having a trust relationship with a first SSO provider corresponding to the SSO token.

24. The apparatus of claim 22, further comprising:

5 means for receiving a signal representing a second SSO credential generated by a second SSO provider based on the first SSO credential; and

means for sending a signal representing the second SSO credential to the secure resource when the type of credential required to access the secure resource includes the second SSO credential.

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25. The apparatus of claim 17, wherein the generic application-layer network protocol is hypertext transfer protocol.

26. The apparatus of claim 25, further comprising:

means for receiving a signal representing data in response to the second request; and

means for sending a signal representing at least a portion of the data to the remote user.

27. The apparatus of claim 26, wherein the Web resource includes a Web site, and the data is hypertext mark-up language.

28. The apparatus of claim 17, wherein means for receiving includes means for receiving a signal representing a request from the remote user for a second secure resource residing on the network, further comprising:

25 means for determining, without the intervention of the user, the type of security credential required to access the second secure resource; and

means for sending a signal representing a third request to the second secure resource, the third request including a security credential for the user of the type required to access the second secure resource; and wherein

30 the signals representing the second and third requests are sent concurrently.

29. The apparatus of claim 28, wherein the types of security credentials included in the second and third requests differ.

30. The apparatus of claim 28, wherein the types of security credentials included in the second and third requests are the same.

31. The apparatus of claim 17, further comprising:

means for receiving a signal representing the security credential from the user before receiving the signal representing the request.

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32. The apparatus of claim 31, further comprising:

means for storing the security credential at least until sending the signal representing the second request.

33. Computer-readable media tangibly embodying a program of instructions executable by a computer to perform a method for use in a server, the method comprising:

receiving a signal representing a request from a remote user for a secure resource residing on a network employing a generic application-layer network protocol;

determining, without the intervention of the user, the type of security credential required to access the secure resource; and

sending a signal representing a second request to the secure resource, the second request including a security credential for the user of the type required to access the secure resource.

25 34. The media of claim 33, wherein the method further comprises:
authenticating the user before sending the signal representing the second request.

35. The media of claim 33, wherein the method further comprises:

receiving a signal representing a response to the second request; and

30 sending a signal representing a result to the remote user, the result based on the response to the second request.

36. The media of claim 33, wherein the request includes a logon credential for the remote user, wherein the method further comprises:

5 authenticating the remote user based on the logon credential before sending the second request.

37. The media of claim 33, wherein the request includes a logon credential for the remote user and the type of security credential required to access the secure resource includes the logon credential, wherein the method further comprises:

10 sending the signal representing the second request to the secure resource, the second request including the logon credential.

38. The media of claim 33, wherein the request includes a logon credential for the remote user, wherein the method further comprises:

15 receiving a signal representing a single-sign-on (SSO) credential generated by a SSO provider based on the logon credential; and

sending a signal representing the SSO credential to the secure resource when the type of credential required to access the secure resource includes the SSO credential.

20 39. The media of claim 38, wherein the method further comprises:

sending a signal representing the SSO credential to the secure resource when the type of credential required to access the secure resource includes a second SSO token corresponding to a second SSO provider having a trust relationship with a first SSO provider corresponding to the SSO token.

25 40. The media of claim 38, wherein the method further comprises:

receiving a signal representing a second SSO credential generated by a second SSO provider based on the first SSO credential; and

30 sending a signal representing the second SSO credential to the secure resource when the type of credential required to access the secure resource includes the second SSO credential.

41. The media of claim 33, wherein the generic application-layer network
protocol is hypertext transfer protocol.

5 42. The media of claim 41, wherein the method further comprises:
receiving a signal representing data in response to the second request; and
sending a signal representing at least a portion of the data to the remote user.

10 43. The media of claim 42, wherein the Web resource includes a Web site, and the
data is hypertext mark-up language.

15 44. The media of claim 33, wherein receiving includes receiving a signal
representing a request from the remote user for a second secure resource residing on the
network, wherein the method further comprises:

determining, without the intervention of the user, the type of security credential
required to access the second secure resource; and

20 sending a signal representing a third request to the second secure resource, the third
request including a security credential for the user of the type required to access the second
secure resource; and wherein

the signals representing the second and third requests are sent concurrently.

25 45. The media of claim 44, wherein the types of security credentials included in
the second and third requests differ.

46. The media of claim 44, wherein the types of security credentials included in
the second and third requests are the same.

30 47. The media of claim 33, wherein the method further comprises:
receiving a signal representing the security credential from the user before receiving
the signal representing the request.

48. The media of claim 47, wherein the method further comprises:
storing the security credential at least until sending the signal representing the second
request.

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